Key:
Text - 1999 draft second notice
Red - "issues" that need to be decided
Green - corrections that need to be made
Light Blue - workgroup suggested changes
Yellow - changes made from SEA 431 and HEA 1221
Pink - IDEM suggested changes

SECTION 1. 327 IAC 2-1-6 IS AMENDED TO READ AS FOLLOWS:

327 IAC 2-1-6 Minimum surface water quality standards
Authority: IC 13-14-8; IC 13-14-9; IC 13-18-3
Affected: IC 13-18-4; IC 13-30-2-1

Sec. 6. (a) The following are minimum water quality conditions:
(1) All waters at all times and at all places, including the mixing zone, shall meet the minimum conditions of being free from substances, materials, floating debris, oil, or scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges:
(A) that will settle to form putrescent or otherwise objectionable deposits;
(B) that are in amounts sufficient to be unsightly or deleterious;
(C) that produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;
(D) which are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans:
(i) to assure protection of aquatic life, concentrations of toxic substances shall not exceed the final acute value (FAV = 2 (AAC)) in the undiluted discharge or the acute aquatic criterion (AAC) outside the zone of initial dilution or, if applicable, the zone of discharge-induced mixing:
(AA) for certain substances, the AAC are established and set forth in Table 1 (which table incorporates Table 2); and
(BB) for substances for which an AAC is not specified in Table 1, or if a different AAC can be scientifically justified based on new toxicological data or site-specific conditions concerning water quality characteristics or species present, an AAC can be calculated by the commissioner using the procedures in section 8.2 of this rule; and
(ii) this clause shall not apply to the chemical control of plants and animals when that control is performed in compliance with approval conditions specified by the Indiana department of natural resources as provided by IC 14-2-1 *[IC 14-2 was repealed by P.L.1-1995, SECTION 91, effective July 1, 1995.]*; and
(E) which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such degree as to create a nuisance, be

unsightly, or otherwise impair the designated uses.

(2) At all times, all waters outside of mixing zones shall be free of substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants. To assure protection against the adverse effects identified in this subdivision, the following requirements are established:

(A) A toxic substance or pollutant shall not be present in such waters in concentrations which exceed the most stringent of the following continuous criterion concentrations (CCCs):

(i) A chronic aquatic criterion (CAC) to protect aquatic life from chronic toxic effects.

(ii) A terrestrial life cycle safe concentration (TLSC) to protect terrestrial organisms from toxic effects which may result from the consumption of aquatic organisms and/or water from the waterbody.

(iii) A human life cycle safe concentration (HLSC) to protect human health from toxic effects which may result from the consumption of aquatic organisms and/or drinking water from the waterbody.

(iv) For carcinogenic substances, a criterion to protect human health from unacceptable cancer risk of greater than one (1) additional occurrence of cancer per one hundred thousand (100,000) population.

(B) For certain substances, one (1) or more of the CCCs identified in clause (A) are established and set forth in Table 1 (which table incorporates Table 2). If one (1) or more of the CCCs are absent from Table 1 or if a different criterion or criteria can be scientifically justified based on new toxicological data or site-specific conditions of water quality or resident species, such criterion or criteria may be calculated by the commissioner using the corresponding procedures prescribed by sections 8.3 through 8.6 of this rule.

(C) The CAC and TLSC for a substance apply in all waters outside a mixing zone for a discharge of that substance. Similarly, in waters where a public drinking water intake is not present or is unaffected by the discharge of a substance, the HLSC and the carcinogenic criterion for that substance based on consumption of organisms from the waterbody and only incidental ingestion of water shall apply to all waters outside the mixing zone for a discharge of that substance. In waters where a public drinking water intake is present, the HLSC and the carcinogenic criterion for a substance based on consumption of organisms and potable water from the waterbody shall apply at the point of the public drinking water intake.

(D) All CCCs shall be met at the point at which they apply (outside of the mixing zone or point of drinking water intake).

(3) The toxicity criteria set forth for metals in Table 1 are expressed in terms of the acid-soluble fraction of the metals (unless specified otherwise) in order to be consistent with the ambient water quality criteria published by the U.S. Environmental Protection Agency (EPA) for these metals. In the absence of an analytical chemistry method approved by EPA for determination of the acid-soluble fraction of a metal, the criteria in Table 1 shall be enforced as total recoverable metals, except as otherwise provided in 327

IAC 5-2-11.1, until an acid-soluble analytical method is approved by EPA, and by the board through rulemaking.

Table 1

Water Quality Criteria for Specific Substances

Substances	AAC (Maximum)	CCC (4-Day Average)		
		Outside of Mixing Zone		Point of Water Intake
		Aquatic Life (CAC)	Human Health	Human Health
Metals (µg/l)				
(Acid soluble, except as indicated)				
Antimony			45,000 (T)	146 (T)
Arsenic (III)[@]	360	190	0.175 (C)	0.022 (C)
Barium				1,000 (D)
Beryllium			1.17 (C)	0.068 (C)
Cadmium #[@]	$e^{(1.128\ [1n\ Hard*]-3.828)}$	$e^{(0.7852\ [1n\ Hard]-3.490)}$		10 (D)
Chromium (III)#[@]	$e^{(0.819\ [1n\ Hard]+3.688)}$	$e^{(0.8190\ [1n\ Hard]+1.561)}$	3,433,000 (T)	170,000 (T)
Chromium (VI)[@]	(dissolved) 16	11		50 (D)
Copper #	$e^{(0.9422\ [1n\ Hard]-1.464)}$	$e^{(0.8545\ [1n\ Hard]-1.465)}$		
Lead #	$e^{(1.273\ [1n\ Hard]-1.460)}$	$e^{(1.273\ [1n\ Hard]-4.705)}$		50 (D)
Mercury [@]$	2.4	0.012	0.15 (T)	0.14 (T)
Nickel #	$e^{(0.8460\ [1n\ Hard]+3.3612)}$	$e^{(0.8460\ [1n\ Hard]+1.1645)}$	100 (T)	13.4 (T)
Selenium	130* *	35		10 (D)
Silver #	$e^{(1.72\ [ln\ Hard]-6.52)}/2$**			50 (D)
Thallium			48 (T)	13 (T)
Zinc #	$e^{(0.8473\ [ln\ Hard]+0.8604)}$	$e^{(0.8473\ [ln\ Hard]+0.7614)}$		
Organics (µg/l)				
Acrolein			780 (T)	320 (T)
Acrylonitrile			6.5 (C)	0.58 (C)
Aldrin [@]$	1.5**		0.00079 (C)	0.00074 (C)
Benzene [@]			400 (C)	6.6 (C)
Benzidine			0.0053 (C)	0.0012 (C)
Carbon Tetrachloride			69.4 (C)	4.0 (C)
Chlordane [@]$	1.2**	0.0043	0.0048 (C)	0.0046 (C)
Chlorinated Benzenes				
Monochlorobenzene [@]				488 (T)
1,2,4,5-Tetrachlorobenzene			48 (T)	38 (T)
Pentachlorobenzene $			85 (T)	74 (T)
Hexachlorbenzene [@]$			0.0074 (C)	0.0072 (C)
Chlorinated Ethanes				
1,2-dichloroethane			2,430 (C)	9.4 (C)
1,1,1-trichloroethane [@]			1,030,000 (T)	18,400 (T)
1,1,2-trichloroethane [@]			418 (C)	6.0 (C)

1,1,2,2-tetrachloroethane[@]			107 (C)	1.7 (C)
Hexachloroethane [@]$			87.4 (C)	19 (C)
Chlorinated Phenols				
2,4,5-trichlorophenol				2,600 (T)
2,4,6-trichlorophenol [@]			36 (C)	12 (C)
Chloroalkyl Ethers				
bis(2-chloroisopropyl) ether			4,360 (T)	34.7 (T)
bis(chloromethyl) ether			0.018 (C)	0.000038 (C)
bis(2-chloroethyl) ether			13.6 (C)	0.3 (C)
Chloroform			157 (C)	1.9 (C)
Chlorpyrifos $	0.083	0.041		
DDT [@]$	0.55**	0.0010	0.00024 (C)	0.00024 (C)
Dichlorobenzenes [@]			2,600 (T)	400 (T)
Dichlorobenzidine [@]			0.2 (C)	0.1 (C)
1,1-dichloroethylene			18.5 (C)	0.33 (C)
2,4-dichlorophenol [@]				3,090 (T)
Dichloropropenes			14,100 (T)	87 (T)
Dieldrin [@]$	1.3**	0.0019	0.00076 (C)	0.00071 (C)
2,4-dinitrotoluene [@]			91 (C)	1.1 (C)
Dioxin (2,3,7,8-TCDD) [@]$			0.0000001 (C)	0.0000001 (C)
1,2-diphenylhydrazine [@]			5.6 (C)	0.422 (C)
Endosulfan [@]	0.11**	0.056	159 (T)	74 (T)
Endrin [@]$	0.09**	0.0023		1.0 (D)
Ethylbenzene [@]			3,280 (T)	1,400 (T)
Fluoranthene [@]$			54 (T)	42 (T)
Halomethanes			157 (C)	1.9 (C)
Heptachlor [@]$	0.26**	0.0038	0.0028 (C)	0.0028 (C)
Hexachlorobutadiene [@]$			500 (C)	4.47 (C)
Hexachlorocyclohexane (HCH)				
alpha HCH [@]$			0.31 (C)	0.09 (C)
beta HCH [@]$			0.55 (C)	0.16 (C)
gamma HCH (Lindane) [@]$	1.0**	0.080	0.63 (C)	0.19 (C)
Technical HCH [@]$			0.41 (C)	0.12 (C)
Hexachlorocyclopentadiene [@]				206 (T)
Isophorone			520,000 (T)	5,200 (T)
Nitrobenzene				19,800 (T)
Nitrophenols				
4,6-dinitro-o-cresol			765 (T)	13.4 (T)
Dinitrophenol			14,300 (T)	70 (T)
Nitrosamines				
N-nitrosodiethylamine			12.4 (C)	0.008 (C)
N-nitrosodimethylamine			160 (C)	0.014 (C)
N-nitrosodibutylamine			5.9 (C)	0.064 (C)
N-nitrosodiphenylamine [@]			161 (C)	49 (C)

N-nitrosopyrrolidine			919 (C)	0.16 (C)
Parathion [@]	0.065	0.013		
Pentachlorophenol [@]	$e^{(1.005\ [pH]-4.830)}$	$e^{(1.005\ [pH]-5.290)}$		1,000 (T)
Phenol $				3,500 (T)
Phthalate Esters				
Dimethyl phthalate			2,900,000 (T)	313,000 (T)
Diethyl phthalate			1,800,000 (T)	350,000 (T)
Dibutyl phthalate [@]$			154,000 (T)	34,000 (T)
Di-2-ethylhexyl phthalate $			50,000 (T)	15,000 (T)
Polychlorinated Biphenyls (PCBs) [@]$		0.014	0.00079 (C)	0.00079 (C)
Carcinogenic Polynuclear Aromatic Hydrocarbons (PAHs) [@]$			0.31 (C)	0.028 (C)
Tetrachloroethylene [@]			88.5 (C)	8 (C)
Toluene [@]			424,000 (T)	14,300 (T)
Toxaphene [@]$	0.73	0.0002	0.0073 (C)	0.0071 (C)
Trichloroethylene [@]			807 (C)	27 (C)
Vinyl Chloride			5,246 (C)	20 (C)
Other Substances				
Asbestos (fibers/liter)				300,000 (C)
Chlorides (mg/l)	860	230		
Chlorine (Total Residual) (µg/l)	19	11		
Chlorine[a] (mg/l) (intermittent, total residual)		0.2		
Cyanide (Total) (µg/l)	22	5.2		200 (D)
Nitrate-N + Nitrite-N (mg/l)				10 (D)
Nitrite-N (mg/l)				1.0 (D)

Dissolved solids shall not exceed 750 mg/l in all waters.

Fluoride shall not exceed 2.0 mg/l in all waters, except the Ohio River and Interstate Wabash River where it shall not exceed 1.0 mg/l.

Sulfates shall not exceed 250 mg/l in all waters.

#See Table 2 for calculated AAC and CAC values at various hardness levels. The criteria from Table 2 may be utilized in the alternative to criteria from Table 1 to determine protective concentrations for the seven (7) metallic substances for acute and chronic toxicity based on the characteristic hardness for a particular waterbody. For hardness values other than those specifically listed in Table 2, the standard proportional interpolation technique should be used to obtain the corresponding criteria values.

*Natural logarithm of hardness in milligrams per liter $CaCO_3$.

**One-half (½) of the final acute value (FAV) as calculated by procedures developed by U.S. EPA in 1980. This value would correspond to acute aquatic values calculated using IDEM procedures or U.S. EPA procedures developed in 1985 in which the calculated FAV is divided by two (2) to reduce acute toxicity.

T derived from threshold toxicity.

C derived from nonthreshold cancer risk.

D derived from drinking water standards, equal to or less than threshold toxicity.

[@]This substance, which has a log octanol-water partition coefficient greater than or equal to two (2.0), is considered to be bioconcentrating and of concern.

$This substance is considered to be a bioaccumulative chemical of concern.

[a]To be considered an intermittent discharge, total residual chlorine shall not be detected in the discharge for a period of more than forty (40) minutes in duration and such periods shall be separated by at least five (5) hours.

Table 2

Acute (AAC) and chronic (CAC) aquatic criteria for certain metals at selected hardness values as calculated from equations in Table 1 (metals concentrations in micrograms per liter; hardness in milligrams per liter $CaCO_3$).

	Cadmium		Chromium III		Copper		Lead		Nickel		Silver		Zinc	
Hardness	AAC	CAC	AAC	CAC	AAC	CAC	AAC	CAC	AAC	CAC	AAC	CAC	AAC	CAC
50	2	0.7	984	117	9	6	34	1	789	88	0.6	.	65	59
100	4	1.1	1737	207	18	12	82	3	1418	158	2.	.	117	106
150	6	1.6	2420	289	26	17	137	5	1999	222	4	.	165	149
200	9	2.0	3064	365	34	21	197	8	2549	283	7	.	210	191
250	11	2.3	3679	438	42	26	262	10	3079	342	10	.	254	230
300	14	2.7	4270	509	50	30	331	13	3592	400	13	.	297	269
350	16	3.0	4845	577	58	34	402	16	4093	455	18	.	338	306
400	19	3.4	5405	644	65	39	477	19	4582	509	22	.	379	343
450	21	3.7	5952	709	73	43	554	22	5063	563	27	.	419	379
500	24	4.0	6488	773	81	47	634	25	5535	615	32	.	458	415

(b) This subsection establishes minimum water quality for aquatic life. In addition to subsection (a), subdivisions (1) through (5) are established to ensure conditions necessary for the maintenance of a well-balanced aquatic community. Subdivisions (1) through (5) are applicable at any point in the waters outside of the mixing zone:

(1) There shall be no substances which impart unpalatable flavor to food fish or result in noticeably offensive odors in the vicinity of the water.

(2) No pH values below six (6.0) nor above nine (9.0), except daily fluctuations which exceed pH nine (9.0) and are correlated with photosynthetic activity, shall be permitted.

(3) Concentrations of dissolved oxygen shall average at least five (5.0) milligrams per liter per calendar day and shall not be less than four (4.0) milligrams per liter at any time.

(4) The following conditions for temperature:

(A) There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.

(B) The normal daily and seasonal temperature fluctuations that existed before the addition of heat due to other than natural causes shall be maintained.

(C) The maximum temperature rise at any time or place above natural

temperatures shall not exceed five degrees Fahrenheit (5EF) (two and eight-tenths degrees Celsius (2.8EC)) in streams and three degrees Fahrenheit (3EF) (one and seven-tenths degrees Celsius (1.7EC)) in lakes and reservoirs.

(D) Water temperatures shall not exceed the maximum limits in the following table during more than one percent (1%) of the hours in the twelve (12) month period ending with any month; at no time shall the water temperature at such locations exceed the maximum limits in Table 3 by more than three degrees Fahrenheit (3EF) (one and seven-tenths degrees Celsius (1.7EC)).

TABLE 3

	Ohio River Main Stem EF(EC)	Other Indiana Streams EF(EC)
January	50 (10.0)	50 (10.0)
February	50 (10.0)	50 (10.0)
March	60 (15.6)	60 (15.6)
April	70 (21.1)	70 (21.1)
May	80 (26.7)	80 (26.7)
June	87 (30.6)	90 (32.2)
July	89 (31.7)	90 (32.2)
August	89 (31.7)	90 (32.2)
September	87 (30.7)	90 (32.2)
October	78 (25.6)	78 (25.5)
November	70 (21.1)	70 (21.1)
December	57 (14.0)	57 (14.0)

(5) The following criteria will be used to regulate ammonia:

(A) Except for waters covered in clause (B), at all times, all waters outside of mixing zones shall be free of substances in concentrations which, on the basis of available scientific data, are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

(B) For those waters listed in subsection (c), the following ammonia criteria will apply outside the mixing zone:

Maximum Ammonia Concentrations

(Unionized Ammonia as N)[***]

(mg/l)

Temperature (EC)

pH	0	5	10	15	20	25	30
6.5	0.0075	0.0106	0.0150	0.0211	0.0299	0.0299	0.0299
6.6	0.0092	0.0130	0.0183	0.0259	0.0365	0.0365	0.0365
6.7	0.0112	0.0158	0.0223	0.0315	0.0444	0.0444	0.0444
6.8	0.0135	0.0190	0.0269	0.0380	0.0536	0.0536	0.0536
6.9	0.0161	0.0228	0.0322	0.0454	0.0642	0.0642	0.0642
7.0	0.0191	0.0270	0.0381	0.0539	0.0761	0.0761	0.0761
7.1	0.0244	0.0316	0.0447	0.0631	0.0892	0.0892	0.0892
7.2	0.0260	0.0367	0.0518	0.0732	0.1034	0.1034	0.1034
7.3	0.0297	0.0420	0.0593	0.0837	0.1183	0.1183	0.1183
7.4	0.0336	0.0474	0.0669	0.0946	0.1336	0.1336	0.1336
7.5	0.0374	0.0528	0.0746	0.1054	0.1489	0.1489	0.1489
7.6	0.0411	0.0581	0.0821	0.1160	0.1638	0.1638	0.1638
7.7	0.0447	0.0631	0.0892	0.1260	0.1780	0.1780	0.1780
7.8	0.0480	0.0678	0.0958	0.1353	0.1911	0.1911	0.1911
7.9	0.0510	0.0720	0.1017	0.1437	0.2030	0.2030	0.2030
8.0	0.0536	0.0758	0.1070	0.1512	0.2135	0.2135	0.2135
8.1	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.2	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.3	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.4	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.5	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.6	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.7	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.8	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
8.9	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137
9.0	0.0537	0.0758	0.1071	0.1513	0.2137	0.2137	0.2137

[***]To calculate total ammonia, divide the number in the table by the value determined by: $1/(10^{pka-pH} + 1)$.

Where pka = $0.09018 + (2729.92/(T + 273.2))$

:

pH = pH of water

T = EC

24-Hour Average Ammonia Concentrations

(Unionized Ammonia as N)[***]

(mg/l)

Temperature (EC)

pH	0	5	10	15	20	25	30
6.5	0.0005	0.0008	0.0011	0.0015	0.0015	0.0015	0.0015
6.6	0.0007	0.0010	0.0014	0.0019	0.0019	0.0019	0.0019
6.7	0.0009	0.0012	0.0017	0.0024	0.0024	0.0024	0.0024
6.8	0.0011	0.0015	0.0022	0.0031	0.0031	0.0031	0.0031
6.9	0.0014	0.0019	0.0027	0.0038	0.0038	0.0038	0.0038
7.0	0.0017	0.0024	0.0034	0.0048	0.0048	0.0048	0.0048
7.1	0.0022	0.0031	0.0043	0.0061	0.0061	0.0061	0.0061
7.2	0.0027	0.0038	0.0054	0.0077	0.0077	0.0077	0.0077
7.3	0.0034	0.0048	0.0068	0.0097	0.0097	0.0097	0.0097
7.4	0.0043	0.0061	0.0086	0.0122	0.0122	0.0122	0.0122
7.5	0.0054	0.0077	0.0108	0.0153	0.0153	0.0153	0.0153
7.6	0.0068	0.0097	0.0136	0.0193	0.0193	0.0193	0.0193
7.7	0.0086	0.0122	0.0172	0.0242	0.0242	0.0242	0.0242
7.8	0.0092	0.0130	0.0184	0.0260	0.0260	0.0260	0.0260
7.9	0.0098	0.0138	0.0196	0.0276	0.0276	0.0276	0.0276
8.0	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.1	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.2	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.3	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.4	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.5	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.6	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.7	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.8	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
8.9	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294
9.0	0.0103	0.0146	0.0206	0.0294	0.0294	0.0294	0.0294

[***]To calculate total ammonia, divide the number in the table by the value determined by: $1/(10^{pka-pH} + 1)$.

Where pka = $0.09018 + (2729.92/(T + 273.2))$

:

pH = pH of water

T = EC

(c) This subsection establishes water quality for cold water fish. In addition to subsections (a) through (b), the following standards are established to ensure conditions necessary for the maintenance of a well-balanced, cold water fish community and are applicable at any point in the waters outside of the mixing zone:

(1) Waters designated as salmonid waters and that shall be protected for cold water fish are those waters designated by the Indiana department of natural resources for put-and-take trout fishing.

(2) In the waters listed in subdivision (1), dissolved oxygen concentrations shall not be less than six (6.0) milligrams per liter at any time and shall not be less than seven (7.0) milligrams per liter in areas where spawning occurs during the spawning season, and in areas used for imprinting during the time salmonids are being imprinted.

(3) In those waters listed in subdivision (1), the maximum temperature rise above natural shall not exceed two degrees Fahrenheit (2EF) (one and one-tenth degree Celsius (1.1EC)) at any time or place nor, unless due to natural causes, shall the temperature exceed the following:

(A) Seventy degrees Fahrenheit (70EF) (twenty-one and one-tenth degrees Celsius (21.1EC)) at any time.

(B) Sixty-five degrees Fahrenheit (65EF) (eighteen and three-tenths degrees Celsius (18.3EC)) during spawning and imprinting periods.

(d) This subsection establishes bacteriological quality for recreational uses. In addition to subsection (a), the criteria in this subsection are to be used to evaluate waters for full body contact recreational uses, to establish wastewater treatment requirements, and to establish effluent limits during the recreational season, which is defined as the months of April through October, inclusive. E. coli bacteria, using membrane filter (MF) count, shall not exceed one hundred twenty-five (125) per one hundred (100) milliliters as a geometric mean based on not less than five (5) samples equally spaced over a thirty (30) day period nor exceed two hundred thirty-five (235) per one hundred (100) milliliters in any one (1) sample in a thirty (30) day period.

(e) This subsection establishes surface water quality for public water supply. In addition to subsections (a) and (d), the following standards are established to protect the surface water quality at the point at which water is withdrawn for treatment for public supply:

(1) The coliform bacteria group shall not exceed five thousand (5,000) per one hundred (100) milliliters a monthly average value (either MPN or MF count); nor exceed this number in more than twenty percent (20%) of the samples examined during any month; nor exceed twenty thousand (20,000) per one hundred (100) milliliter in more than five percent (5%) of such samples.

(2) Taste and odor producing substances, other than naturally occurring, shall not interfere with the production of a finished water by conventional treatment consisting of coagulation, sedimentation, filtration, and disinfection.

(3) The concentrations of either chlorides or sulfates shall not exceed two hundred fifty (250) milligrams per liter other than due to naturally occurring sources.

(4) Surface waters shall be considered acceptable for public supplies if Radium-226 and

Strontium-90 are present in amounts not exceeding three (3) and ten (10) picocuries per liter, respectively. In the known absence of Strontium-90 and alpha emitters, the water supply is acceptable when the gross beta concentrations do not exceed one thousand (1,000) picocuries per liter.

(5) Chemical constituents in the waters shall not be present in such levels as to prevent, after conventional treatment, meeting the drinking water standards contained in 327 IAC 8-2, due to other than natural causes.

(f) This subsection establishes water quality for industrial water supply. In addition to subsection (a), the standard to ensure protection of water quality at the point at which water is withdrawn for use (either with or without treatment) for industrial cooling and processing is that, other than from naturally occurring sources, the dissolved solids shall not exceed seven hundred fifty (750) milligrams per liter at any time. A specific conductance of one thousand two hundred (1,200) micromhos per centimeters (at twenty-five degrees Celsius (25EC)) may be considered equivalent to a dissolved solids concentration of seven hundred fifty (750) milligrams per liter.

(g) This subsection establishes water quality for agricultural uses. The standards to ensure water quality conditions necessary for agricultural use are the same as those in subsection (a).

(h) This subsection establishes water quality for limited uses. The quality of waters classified for limited uses pursuant to section 3(a)(5) of this rule shall, at a minimum, meet the following standards:

(1) The standards contained in subsection (a).

(2) The standards contained in subsection (d).

(3) The standards contained in subsection (f), where applicable.

(4) The waters must be aerobic at all times.

(5) Notwithstanding the preceding subdivisions, the quality of a limited use stream at the point where it becomes physically or chemically capable of supporting a higher use or at its interface with a higher use water segment shall meet the standards which are applicable to the higher use water.

(i) This subsection establishes water quality for exceptional uses. Waters classified for exceptional uses warrant extraordinary protection. ~~Unless standards are otherwise specified on a case-by-case basis,~~ The quality of all waters designated for exceptional use shall be maintained ~~without degradation.~~ **in the same manner set forth for Outstanding state resource waters (OSRWs) under 327 IAC 2-1.3.**

(j) Notwithstanding section 7 of this rule, the acute aquatic and chronic aquatic criteria (AAC and CAC) established in subsection (a) shall apply to the underground portion of the Lost River system and other underground streams and their tributaries that support fish or other higher aquatic life forms. *(Water Pollution Control Board; 327 IAC 2-1-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 581; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1020; errata, 13 IR 1861; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2003; filed Feb 26, 1993, 5:00 p.m.: 16 IR 1725; errata filed May 7, 1993, 4:00 p.m.: 16 IR 2189; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1348; errata filed Aug 11,*

1997, 4:15 p.m.: 20 IR 3376)

SECTION 2. 327 IAC 2-1.3 IS ADDED TO READ AS FOLLOWS:

Rule 1.3 Antidegradation Standards and Implementation Procedures

327 IAC 2-1.3-1 Applicability of water quality standards

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18- 4-1; IC 13-18-4-3

Affected: IC 13-18-3; IC 13-18-4

Sec. 1. The water quality standards established by this rule ~~shall apply~~ **and 327 IAC 2-1.1 through 327 IAC 2-1.6 applies** to all **surface** waters of the state. ~~except waters of the state within the Great Lakes system regulated under 327 IAC 2-1.5.~~ *(Water Pollution Control Board; 327 IAC 2-1-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 579; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1018; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1347)*

327 IAC 2-1.3-2 Definitions

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-4-1; IC 13-18-4-3

Affected: IC 13-13-1-1; IC 13-18-3; IC 13-18-4; IC 14-22-34; IC 36-2-3.5; IC 36-3-1

Sec. 2. The following definitions apply to this rule and 327 IAC 2-1.1 through 327 IAC 2-1.6:

(1) "Application" means an application for a:

(A) permit; or

(B) determination related to a permit.

(2)"Best management practices" or "BMPs" means the following measures to prevent or reduce the pollution of surface waters of the state:

(A) Schedules of activities.

(B) Prohibitions of practice.

(C) Treatment requirements.

(D) Operation and maintenance procedures.

(E) Use of containment facilities.

(F) Other management practices.

BMPs may be employed, for example, to control plant site run-off, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage resulting from manufacturing, commercial, mining, or silvicultural activities.

(3) "Bioaccumulation" means the net accumulation of a substance by an organism as a result of uptake from all environmental sources.

(4) "Bioaccumulation factor" or "BAF" means the ratio (in liters per kilogram) of a substance's concentration in tissue of an aquatic organism to its concentration in the ambient water, in situations where both the organism and its food are exposed and

the ratio does not change substantially over time.
(5) "Bioaccumulative chemical of concern" or "BCC" has the meaning set forth in 327 IAC 2-1.5-6.
(6) "Board" means the water pollution control board established under IC 13-18-1.
(7) "CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601 through 42 U.S.C. 9675, as amended on October 11, 1996.
(8) "Clean Water Act" or "CWA" means the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., as amended on December 16, 1996.
(9) "Combined sewer" means a sewer designed and employed to receive both:
(A) water-carried or liquid wastes; and
(B) storm or surface water.
(10) "Commissioner" means the commissioner of the department of environmental management.
(11) "Community" means a general collective term to describe the varieties of aquatic species and associated organisms living together in a water body.
(12) "Control document"means an NPDES permit or a § 401 water quality certification.
(13) "Criteria" means a definite numerical value or narrative statement promulgated by the board to maintain or enhance water quality to provide for and fully protect designated uses of the surface waters of the state.
(14) "Degradation" means, with respect to a National Pollutant Discharge Elimination System permit, the following:
(A) With respect to an outstanding national resource water, any new or increased discharge of a pollutant or a pollutant parameter, except for a short term, temporary increase.
(B) With respect to an outstanding state resource water or an exceptional use water, any new or increased discharge of a pollutant or pollutant parameter that results in a significant lowering of water quality for that pollutant or pollutant parameter, unless:
(i) the activity causing the increased discharge:
(AA) results in an overall improvement in water quality in the outstanding state resource water or exceptional use water; and
(BB) meets the applicable requirements of 327 IAC 2-1-2(1) and (2) and 327 IAC 2-1.5-4(a) and (b); or
(ii) the person proposing the increased discharge undertakes or funds a water quality improvement project in accordance with IC 13-18-3-2(l) in the watershed of the outstanding state resource water or exceptional use water that:
(AA) results in an overall improvement in water quality in the outstanding state resource water or exceptional use water; and
(BB) meets the applicable requirements of 327 IAC 2-1-2(1) and (2) and 327 IAC 2-1.5-4(a) and (b).
(15) "Department" means the department of environmental management

established in IC 13-13-1-1.
(16) "Designated uses" means those uses specified in these water quality standards for each water body whether or not they are being attained. Waste transport and waste assimilation shall not be designated uses.
(17) "Discharge" or "direct discharge", when used without qualification, means a discharge of a pollutant.
(18) "Draft permit" means a document prepared pursuant to 327 IAC 5-3-6 prior to the public comment period by the commissioner indicating the commissioner's tentative decision to:

(A) issue or deny;
(B) modify;
(C) revoke and reissue;
(D) terminate; or
(E) reissue;

a permit. A notice of intent to terminate a permit, and a notice of intent to deny a permit, are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination is not a draft permit. A proposed permit is not a draft permit.
(19) "Exceptional use water" means any water designated as an exceptional use water by the board, regardless of when the designation occurred.
(20) "Effluent" means a wastewater discharge from a point source to the surface waters of the state.
(21) "Effluent limitation" means any restriction established by the commissioner on quantities, discharge rates, and concentrations of pollutants that are discharged, or will be discharged, from point sources into surface waters of the state.
(22) "Existing uses" means those uses actually attained in the water body on or after November 28, 1975, whether or not they are included under 327 IAC 2-1-3.
(23) "Great Lakes" means Lake Erie and Lake Michigan.
(24) "Great Lakes states" means Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin.
(25) "Great Lakes system" means all the streams, rivers, lakes, and other surface waters of the state within the drainage basin of the Great Lakes within Indiana.
(26) "High quality waters" or "HQWs" means water bodies in which, on a parameter by parameter basis, the quality of the surface waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water. The term includes any water body for which the pollutant has not been detected in:

(A) the water column; and
(B) nontransient aquatic organisms at levels that would indicate that a water quality criterion or value is not being met.

(27) "Indirect discharger" means a nondomestic discharger introducing pollutants into a POTW.
(28) "Legislative body" means:

(A) board of county commissioners, for a county not subject to IC 36-2-3.5 or

IC 36-3-1;

(B) county council, for a county subject to IC 36-2-3.5;

(C) city-council, for a consolidated city or county having a consolidated city;

(D) common council, for a city other than a consolidated city;

(E) town council, for a town; or

(F) township board, for a township.

(29) "Mixing zone" means an area contiguous to a discharge where the discharged wastewater mixes with the receiving water and numeric water quality criteria or values may be exceeded. The mixing zone should not be considered a place where effluents are treated.

(30) "National Pollutant Discharge Elimination System" or "NPDES" means the national program for:

(A) issuing;

(B) modifying;

(C) revoking and reissuing;

(D) terminating;

(E) denying;

(F) monitoring; and

(G) enforcing;

permits for the discharge of pollutants from point sources and imposing and enforcing pretreatment requirements by the EPA or an authorized state under Sections 307, 318, 402, and 405 of the Clean Water Act. The term includes a state program approved by EPA under 40 CFR 123.

(31) "New Great Lakes discharger" means any building, structure, facility, or installation from which there is or may be a discharge of a pollutant to the Great Lakes system, the construction of which commenced after March 23, 1997.

(32) "Nuisance species" means a harmful, nonindigenous species including the zebra mussel, round goby, spiny water flea, sea lamprey, Eurasian watermilfoil, purple loosestrife, and ruffle.

(33) "Open waters of Lake Michigan" means all of the surface waters within Lake Michigan lakeward from a line drawn across the mouth of tributaries to the lake, including all surface waters enclosed by constructed breakwaters. For the Indiana Harbor Ship Canal, the boundary of the open waters of Lake Michigan is delineated by a line drawn across the mouth of the harbor from the East Breakwater Light (1995 United States Coast Guard Light List No. 19675) to the northern most point of the LTV Steel property along the west side of the harbor.

(34) "Outstanding national resource waters" or "ONRWs" means ~~those surface waters designated as such by Indiana. The designation shall describe the quality of such surface waters to serve as the benchmark of the water quality that shall be maintained and protected.~~ a water designated as such by the general assembly after recommendations by the board and the environmental quality service council under IC 13-18-3-2(o) and IC 13-18-3-2(p). The designation must describe the quality of the outstanding national resource water to serve as the benchmark of the water quality that shall be maintained and protected. Waters that may be considered for

designation as outstanding national resource waters include water bodies that are recognized as:

(A) important because of protection through official action, such as:

(i) federal or state law;

(ii) presidential or secretarial action;

(iii) international treaty; or

(iv) interstate compact;

(B) having exceptional recreational significance;

(C) having exceptional ecological significance;

(D) having other special environmental, recreational, or ecological attributes; or

(E) waters with respect to which designation as an outstanding national resource water is reasonably necessary for protection of other water bodies designated as outstanding national resource waters.

(35) "Outstanding state resource waters" or "OSRWs" means ~~those surface waters designated as such by Indiana.~~ any water designated as such by the board regardless of when the designation occurred or occurs. Waters that may be considered for designation as outstanding state resource waters include water bodies that have unique or special ecological, recreational, or aesthetic significance.

(36) "Parameter" means a quantitative or characteristic element that describes physical, chemical, or biological conditions of water.

(37) "Permit" means:

(A) a permit;

(B) a license;

(C) a registration;

(D) a certificate; or

(E) other type of authoritzation required before construction or operation;

that may be issued by the commissioner under pollution control laws or environmental management laws.

(38) "Permittee" means the holder of a permit.

(39) "Person" means an individual, a partnership, a copartnership, a firm, a company, a corporation, an association, a joint stock company, a trust, an estate, a municipal corporation, a city, a school city, a town, a school town, a school district, a school corporation, a county, any consolidated unit of government, political subdivision, state agency, a contractor, or any other legal entity.

(40) "Point source" means any discernible, confined, and discrete conveyance, including, but not limited to, any of the following from which pollutants are or may be discharged:

(A) Pipe.

(B) Ditch.

(C) Channel.

(D) Tunnel.

(E) Conduit.

(F) Well.

(G) Discrete fissure.
(H) Container.
(I) Rolling stock.
(J) Concentrated animal feeding operation.
(K) Landfill leachate collection system.
(L) Vessel.
(M) Other floating craft.

The term does not include return flows from irrigated agriculture or agricultural storm run-off. See 327 IAC 5-2-4 for other exclusions.

(41) "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

(42) "Pollution prevention" means pollution prevention as defined by the United States Environmental Protection Agency under:

(A) the federal Pollution Prevention Act, 42 U.S.C. 13101 et seq.; and
(B) the United State Environmental Protection Agency pollution prevention policy statement (June 15, 1993).

(43) "Privately owned treatment works" means any device or system that is:

(A) used to treat wastes from any facility whose operator is not the operator of the treatment works; and
(B) not a POTW.

(44) "Publicly owned treatment works" or "POTW" means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a state or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

(45) "RCRA" means the Resource Conservation and Recovery Act, 42 U.S.C. 6901 through 42 U.S.C. 6992k, as amended on October 19, 1996.

(46) "Recommencing discharger" means a source that recommences discharge after terminating operations.

(47) "Risk" means the probability that a pollutant or pollutant parameter, when released to the environment, will cause an adverse effect in exposed humans or other living organisms.

(48) "Sanitary sewer" means a sewer, to which storm, surface, and ground waters are not intentionally allowed to enter, that conveys liquid and water-carried wastes from:

(A) residences;
(B) commercial buildings;
(C) industrial plants; and
(D) institutions.

(49) "Sewage" means all refuse, human excreta, garbage, waste or waste products, or any combination of these substances that:

(A) is potentially capable of contaminating the environment; and

(B) may be collected and carried off in a pipe, ditch, or channel.

(50) "Sewer" means a pipe or conduit that carries wastewater or drainage water.

(51) "Stream design flow" means the stream flow that represents critical conditions, upstream from the source, for protection of aquatic life, human health, or wildlife.

(52) "Threatened or endangered species" means the following:

(A) Species listed, pursuant to Section 4 of the ESA*.

(B) Species listed as state threatened or endangered by the Indiana Department of Natural Resources pursuant to IC 14-22-34.

(C) Species designated as state threatened or endangered species in the January 22, 1997, database for endangered, threatened, rare and special concern species maintained by the Indiana Natural Heritage Data Center, Division of Nature Preserves, Division of Natural Resources.**

(53) "Tier I criteria" means numeric criteria derived by use of the Tier I procedures in 327 IAC 2-1-8.2 through 327 IAC 2-1-8.7 and 327 IAC2-1.5-11 through 327 IAC 2-1.5-16, that either have been adopted as numeric criteria into a water quality standard or are used to implement narrative water quality criteria.

(54) "Tier II ~~criteria~~ values" means numerical ~~criteria~~ values derived by use of the Tier II procedures in 327 IAC 2-1.5-12 through 327 IAC 2-1.5-16, that are used to implement narrative water quality criteria.

(55) "Toxic substances" means pollutants that are or may become harmful to:

(A) aquatic life;

(B) humans;

(C) other animals;

(D) plants; or

(E) food chains;

when present in sufficient concentrations or combinations. Toxic substances include, those pollutants identified as toxic pursuant to Section 307(a)(1) of the Clean Water Act.

(56) "Tributaries of the Great Lakes system" means all surface waters of the Great Lakes system that are not open waters of Lake Michigan or connecting channels.

(57) "Unit of government" means a county, municipality, or township.

(58) "Variance" means a deviation from a water quality criterion or value or a narrative water quality standard granted by the commissioner pursuant to 327 IAC 2-1-8.8 or 327 IAC 2-1.5-17.

(59) "Wastewater" means the following:

(A) Human excreta, water, scum, sludge, and sewage from sewage disposal systems, retained contents of wastewater holding tanks, or portable sanitary units.

(B) Grease, fats, and retained wastes from grease traps or interceptors.

(C) Wastes carried in liquid from ordinary living processes.

(D) Incidental or accidental seepage from sewage disposal systems.

(60) "Water use designations" means a use of the surface waters of the state as established by 327 IAC 2-1-3.

(61) "Waters" or "waters of the state" means either:

(A) the accumulations of water, surface and underground, natural and artificial, public and private; or

(B) a part of the accumulations of water;

that are wholly or partially within, flow through, or border upon Indiana. The term does not include a private pond or an off-stream pond, reservoir, or facility, built for reduction or control of pollution or cooling of water before discharge; unless the discharge from the pond, reservoir, or facility causes or threatens to cause water pollution.

(62) "Watershed" has the meaning set forth in IC 14-8-2-310.

(63) "Whole effluent toxicity" means the aggregate toxic effect of an effluent measured directly by a toxicity test.

***Section 4 of the ESA is incorporated by reference and may be obtained for the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.**

****The data base for endangered, threatened, rare, and special concern species is incorporated by reference and may be obtained from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.** *(Water Pollution Control Board; 327 IAC 2-1-1.1)*

327 IAC 2-1.3-3 Maintenance of surface water quality standards (antidegradation standards)

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-4-1; IC 13-18-4-3

Affected: IC 13-18-3; IC 13-18-4

Sec. 3. ~~The following policies of nondegradation are applicable to all surface waters of the state:~~ **(a) The Tier 1 antidegradation standard is as follows:**

(1) For all **surface** waters of the state, existing ~~beneficial~~ uses **and the level of water quality necessary to protect existing uses** shall be maintained and protected. ~~No degradation of water quality shall be permitted which would interfere with or become injurious to existing and potential uses.~~ **To ensure this standard is met, the commissioner shall do the following:**

(A) Ensure that the level of water quality necessary to protect existing uses is maintained. In order to achieve this requirement, water quality standards use designations must include all existing uses.

(B) Establish controls as necessary on nonpoint sources, where authority exists, and point sources of pollutants to ensure that the criteria and/or values applicable to the designated use are achieved in the water and that

any designated use of a downstream water is protected.

(2) ~~All waters~~ **Where designated uses of the water body are impaired, there shall be no lowering of the water quality with respect to the pollutants or pollutant parameters that are causing the impairment. To ensure this standard is met, the commissioner shall not allow a lowering of water quality for the pollutants or pollutant parameters that prevents the attainment of the designated use or the water quality criterion or value.**

(b) The Tier 2 antidegradation standard for high quality waters (HQWs) is as follows:

(1) The surface waters of the state whose existing quality ~~exceeds the standards~~ **for any parameter is better than the water quality criteria or value for that parameter** established ~~herein as of February 17, 1977,~~ **in 327 IAC 2-1-6 or 327 IAC 2-1.5-8** shall be **considered high quality for that parameter consistent with the definition of high quality waters.**

(2) This high quality of water shall be maintained ~~in their present high quality~~ **and protected** unless ~~and until it is affirmatively demonstrated to the commissioner that limited degradation of such waters is justifiable on the basis of~~ **the commissioner finds, after full satisfaction of intergovernmental coordination and public participation of Indiana's continuing planning process and the provisions in section 7 of this rule that allowing a significant lowering of water quality is** necessary ~~and~~ **to accommodates important** economic or social ~~factors and will not interfere with or become injurious to any beneficial uses made of, or presently possible, in such waters. In making a final determination under this subdivision, the commissioner shall give appropriate consideration to public participation and intergovernmental coordination. (3) The following waters of high quality, as defined in subdivision (2), are designated by the board to be an outstanding state resource and shall be maintained in their present high quality without degradation:~~ **development in the area in which the surface waters are located. In allowing a significant lowering of water quality, the commissioner shall assure:**

(A) water quality adequate to fully protect designated uses; and

(B) that there be achieved the highest statutory and regulatory requirements for all new and existing point sources and, where authority exists, all cost-effective and reasonable best management practices for nonpoint source control.

(3) The commissioner shall use the antidegradation implementation procedures in sections 4 and 5 of this rule to determine if a significant lowering of water quality shall be allowed, unless ~~an exemption listed in~~ section 6 of this rule applies.

(c) The Tier 2.9 antidegradation standard for outstanding state resource waters (OSRWs) is as follows:

(1) For BCCs in OSRWs, as well as waters within two (2) miles upstream of an OSRW, no new or increased loading shall be allowed, unless ~~an exemption listed in~~ section 6(c) of this rule applies.

(2) For non-BCCs in OSRWs, as well as waters within two (2) miles upstream of an OSRW, these waters shall be maintained and protected in their present high quality unless the commissioner finds, after full satisfaction of intergovernmental coordination and public participation of Indiana's continuing planning process and the provisions in section 7 of this rule that allowing a significant lowering of water quality is necessary ~~and~~ to accommodate~~s~~ important economic or social development in the area in which the surface waters are located. In allowing a significant lowering of water quality, the commissioner shall:

(A) assure water quality adequate to fully protect designated uses;

(B) assure that there be achieved the highest statutory and regulatory requirements for all new and existing point sources and, where authority exists, all cost-effective and reasonable best management practices for nonpoint source control; and

(C) use the antidegradation implementation procedures in section 5 of this rule to determine if a significant lowering of water quality shall be allowed, unless ~~an exemption listed in~~ section 6(d) of this rule applies.

(3) Additionally, for non-BCCs in OSRWs, any new or increased discharge limit shall only be allowed if the discharger demonstrates that the proposed discharge or other activities will result in a net improvement to the water quality of the receiving water body, unless ~~an exemption listed in~~ section 6(d) of this rule applies.

(d) The Tier 3 antidegradation standard for outstanding national resource waters (ONRWs) is that all surface waters designated as an ONRW and their tributaries shall be maintained and protected in their present high quality without degradation except for short term, temporary discharges as described in section 6(b)(4) of this rule. To ensure this antidegradation standard is met, the following requirements apply:

(1) All deliberate actions that result in a new or increased discharge from an existing or new discharger are prohibited.

(2) Discharges to a tributary of an ONRW shall not be allowed if it would cause an increase in the ambient concentration of that pollutant in the ONRW.

~~(4)~~ **(e) Except for OSRWs and ONRWs,** any determination made by the commissioner in accordance with Section 316 of the Clean Water Act concerning alternative thermal effluent limitations ~~will~~ **shall** be considered to be consistent with the ~~policies~~ ~~enunciated~~ **antidegradation standards contained** in this section. *(Water Pollution Control Board; 327 IAC 2-1-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 579; filed Feb 1, 1990, 4:30 p.m.: 13 IR 1018; errata filed Jul 6, 1990, 5:00 p.m.: 13 IR 2003; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1346)*

327 IAC 2-1.3-4 Antidegradation implementation procedures for bioaccumulative chemicals of concern

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-4-1; IC 13-18-4-3

Affected: IC 13-18-3; IC 13-18-4

Sec. 4. (a) In HQWs, for a bioaccumulative chemical of concern (BCC), unless ~~an exemption listed in~~ section 6(c) of this rule applies, a significant lowering of water quality will occur and an antidegradation demonstration will be required when a new or increased loading of any BCC is proposed from any new or existing discharger, either point source or nonpoint source, for which a new, renewed or modified control document would be required, as a result of any activity, including the following:

(1) Construction of a new regulated facility or modification of an existing regulated facility such that a new or modified permit is required.

(2) Modification of an existing regulated facility operating under a current permit such that the production capacity of the facility is increased.

(3) Addition of a new source of untreated or pretreated effluent containing or expected to contain any BCC to an existing wastewater treatment works, whether public or private.

(4) A request for an increased limit for a BCC in an applicable permit.

(5) Other deliberate activities that, based on the information available, could reasonably be expected to result in an increased loading of any BCC.

(b) In OSRWs, for a bioaccumulative chemical of concern (BCC), unless ~~an exemption listed in~~ section 6(c) of this rule applies or the permittee elects to implement a water quality improvement project or payment of a fee as detailed in section 7(i) of this rule, no new or increased loading of a BCC shall be allowed from a point or nonpoint source, for which a new, renewed or modified control document would be required as a result of any of the activities listed in subsection (a). *(Water Pollution Control Board; 327 IAC 2-1.3-4)*

327 IAC 2-1.3-5 Antidegradation implementation procedures for nonbioaccumulative chemicals of concern

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-4-1; IC 13-18-4-3

Affected: IC 13-18-3; IC 13-18-4

Sec. 5. (a) This section applies to HQWs and OSRWs.

(b) For a nonbioaccumulative chemical of concern (non-BCC), except for pH and whole effluent toxicity testing, unless ~~an exemption listed in~~ section 6(d) of this rule applies, a significant lowering of water quality will occur and an antidegradation demonstration will be required when the following occur:

(1) At least one (1) of the following is met:

(A) The non-BCC has a numeric water quality criterion listed in 327 IAC 2-1-6 or 327 IAC 2-1.5-8.

(B) The non-BCC has sufficient data for a Tier I criterion or Tier II value to be calculated pursuant to 327 IAC 2-1-8.2 through 327 IAC 2-1-8.7 and 327

IAC 2-1.5-11 through 327 IAC 2-1.5-16.

(2) There is a new or increased limit, either mass or concentration, for the non-BCC or for 5-day carbonaceous biochemical oxygen demand ($CBOD_5$) from any existing or new discharger, either point source or nonpoint source, for which a new, renewed or modified control document is needed, as a result of any activity.

(3) The new or increased limit for the non-BCC or $CBOD_5$ will result in a calculated increase in the ambient concentration for the non-BCC or $CBOD_5$ in the receiving water body outside of the designated mixing zone, where applicable, calculated by using the stream design flow as defined in 327 IAC 5-2.2-1(d).

(4) The new or increased limit for the non-BCC or $CBOD_5$ results in the following:

(A) The following for dissolved oxygen:

(i) In HQWs, there is a proposed increase in the concentration of $CBOD_5$ greater than three (3) milligrams per liter in the receiving water body outside of the designated mixing zone, where applicable, calculated by using the stream design flow as defined in 327 IAC 5-2.2-1(d).

(ii) In OSRWs for $CBOD_5$, there is a proposed increase in the concentration of $CBOD_5$ greater than one and one-half (1.5) milligrams per liter in the receiving water body outside of the designated mixing zone, where applicable, calculated by using the stream design flow as defined in 327 IAC 5-2.2-1(d).

(B) The following for ammonia as nitrogen:

(i) In HQWs, there is a proposed increase in mass discharged greater than thirty percent (30%) of the unused loading capacity.

(ii) In OSRWs, there is a proposed increase in mass discharged greater than fifteen percent (15%) of the unused loading capacity.

(C) The following for all other non-BCCs:

(i) In the Great Lakes System, for proposed new and existing dischargers to HQWs, there is a proposed increase in mass discharged greater than ten percent (10%) of the unused loading capacity.

(ii) Outside the Great Lakes System, for proposed new and existing dischargers to HQWs, there is a proposed increase in mass discharged greater than fifteen percent (15%) of the unused loading capacity.

(iii) Proposed new and existing dischargers to OSRWs not exempt under section 6(d) of this rule shall be required to submit an antidegradation demonstration.

(c) The following definitions apply in subsection (b):

(1) "Total loading capacity for streams" means the product of the applicable water quality criterion or value times the sum of the proposed effluent flow from a new or expanding discharger determined using 327 IAC 5-2.2-1(c) and the stream design flow determined using 327 IAC 5-2.2-1(d) for the water body in the area where the water quality is proposed to be lowered, expressed as a mass loading rate.

(2) "Total loading capacity for discharges directly into lakes other than Lake

Michigan" means the product of the applicable water quality criterion or value times the proposed effluent flow from a new or expanding discharger determined in accordance with 327 IAC 5-2.2-1(c). The total loading capacity shall be expressed as a mass loading rate.
(3) "Total loading capacity for discharges directly into Lake Michigan" means the product of the applicable water quality criterion or value times the sum of the proposed effluent flow from a new or expanding discharger determined in accordance with 327 IAC 5-2.2-1(c) and the approved mixing volume, if any. The total loading capacity shall be expressed as a mass loading rate.
(4) "Unused loading capacity" means that amount of the total loading capacity not allocated to point source dischargers by NPDES permits and nonpoint source discharges at the applicable stream design flow using 327 IAC 5-2.2-1(d). The unused loading capacity is established each time a request to lower water quality is considered.

(d) The proposed increase in mass discharged shall be determined as follows:
(1) M_p - M_E = Proposed increase in mass discharged, where:
(A) M_p = Monthly average mass effluent limitation for the pollutant or pollutant parameter in the proposed discharge.
(B) M_E = Monthly average mass effluent limitation for the pollutant or pollutant parameter in the existing permit.
(2) If the existing permit does not contain a monthly average mass effluent limitation for the non-BCC, but does contain a weekly average or daily maximum mass limit, the existing weekly average or daily maximum permit limit shall be converted into a monthly average value to be used in this equation.
(3) If the existing permit does not contain a monthly average mass limit for the non-BCC, but does contain a concentration limit, this concentration limit shall be converted into a monthly average mass value, using the effluent flow determined under 327 IAC 5-2.2-1(c), to be used in this equation.
(4) If the existing permit does not contain an effluent limit for the non-BCC, the actual monthly average mass discharged shall be used in this equation. The actual monthly average mass discharged is the highest monthly average value of the non-BCC in the discharge derived from the most recent two years of monitoring data for the pollutant. If no monitoring data exist, the permittee will be required to monitor its effluent for a minimum of three months to establish a monthly average value.
(5) For a new discharge of a non-BCC, M_E shall equal zero (0).

(e) If a new or increased limit for the non-BCC or $CBOD_5$ would cause a significant lowering of water quality, the discharger may accept a limit for the non-BCC or $CBOD_5$ that is more stringent than would otherwise be applicable that would not result in the significant lowering of water quality. *(Water Pollution Control Board; 327 IAC 2-1.3-5)*

327 IAC 2-1.3-6 Activities that will not constitute a significant lowering of water quality

~~Antidegradation exemptions~~

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18 4-1; IC 13-18-4-3

Affected: IC 13-18-3; IC 13-18-4

Sec. 6. (a) Any existing or new discharger that proposes a new or increased discharge under one of the provisions ~~exemptions~~ listed in subsections (c) and (d) must submit information to the commissioner before applying for a facility construction permit pursuant to 327 IAC 3, if applicable, or for a new, renewed or modified control document that describes how the provision ~~exemption~~ is applicable. The commissioner shall review the submittal and determine whether the provision ~~exemption~~ applies. If the commissioner determines ~~an~~ the provision ~~exemption~~ does apply, the commissioner shall process the request in the following manner:

(1) Approved activities ~~exemptions~~ not required to be public noticed under section 10 of this rule shall be public noticed as part of the draft permit and briefing memo, as described in 327 IAC 5-3-6 and 327 IAC 5-3-7, or fact sheet, as described in 327 IAC 5-3-8.

(2) ~~Exemptions~~ Activities required to be public noticed under section 10 of this rule shall follow the process described in section 10 of this rule.

(b) Proposed new or increased discharges of a pollutant or pollutant parameter that meet one of the provisions ~~exemptions~~ in this section are ~~exempt from the antidegradation policy~~ not considered a significant lowering of water quality as follows:

(1) For HQWs, subsections (c) and (d) apply in their entirety.

(2) For OSRWs, subsections (c) and (d) apply, except that subsection (d)(9) through (d)(11) are not available and subsection (d)(12) and (d)(13) must meet the public notice requirements in section 10 of this rule before being approved by the commissioner.

(3) For ONRWs, only short term, temporary, new or increased discharges may be allowed if the following conditions are met:

(A) The impact will last less than twelve (12) months.

(B) A proposed new or existing discharger applies for and receives authorization from the commissioner.

(c) The following ~~are exemptions to the antidegradation policy for~~ new or increased discharges of BCCs are not considered a significant lowering of water quality:

(1) Increases in loadings of any BCC within the existing capacity and processes that are covered by an existing applicable control document. These changes include the following:

(A) Normal operational variability, including intermittent increased discharges due to wet-weather conditions.

(B) Changes in intake water pollutants not caused by the discharger.

(C) Increasing the production hours of the facility, for example, adding a second shift.

(D) Increasing the rate of production.

(2) Bypasses not prohibited by 327 IAC 5-2-8(11).

(3) New or increased discharges of a BCC above the existing mass discharged due to increasing the sewered area or connection of new sewers and customers, provided that the increase is within the design flow of the facility, there is no increased loading of BCCs from nondomestic wastes, and no significant change is expected in the characteristics of the wastewater discharged.

(4) Response actions pursuant to the CERCLA, as amended, or similar federal or state authorities, undertaken to alleviate a release into the environment of hazardous substances, pollutants or contaminants that may pose an imminent and substantial danger to public health or welfare.

(d) The following ~~are exemptions to the antidegradation policy for~~ new or increased discharges of non-BCCs are not considered a significant lowering of water quality:

(1) New or increased dischargers of treated sanitary wastewater that are designed to meet the following permit conditions:

(A) Ten (10) milligrams per liter $CBOD_5$ as a monthly average.

(B) Ten (10) milligrams per liter total suspended solids (TSS) as a monthly average.

(C) One (1) milligram per liter ammonia as nitrogen as a monthly average.

(D) Disinfection by ultraviolet light.

(2) New limits for a non-BCC for an existing permitted discharger that will not allow an increase in either the existing mass or concentration of the non-BCC discharged, including new limits that are a result of the following:

(A) New or improved monitoring data.

(B) New or improved analytical methods.

(C) New or modified water quality criteria or values.

(D) New or modified effluent limitations guidelines, pretreatment standards, or control requirements for POTWs.

(3) New or increased discharges of a non-BCC, due solely to the presence of the non-BCC in the intake, when the facility withdraws intake water containing the non-BCC from the same body of water.

(4) New or increased discharges of a non-BCC due solely to implementation of enforceable industrial or municipal controls on wet-weather flows, including combined sewer overflows and individual NPDES permits for storm water associated with industrial activity, when there is not a calculated increase in the quantity and concentration of pollutants discharged to the same body of water.

(5) New or increased discharges of a non-BCC that will result only in a short term, temporary (not to exceed twelve (12) months) lowering of water quality.

(6) A new or increased discharge of a substance used to treat zebra mussels or other nuisance species in an intake water pipe or structure if the commissioner determines that the new or increased discharge will not cause adverse effects on human health, aquatic life and wildlife.

(7) Response actions pursuant to the CERCLA, as amended, or similar federal or

state authorities, undertaken to alleviate a release into the environment of hazardous substances, pollutants or contaminants that may pose an imminent and substantial danger to public health or welfare.

(8) New or increased discharges subject to general permits under 327 IAC 15-5 and 327 IAC 15-6.

(9) New or increased discharges subject to general permits under 327 IAC 15-7 through 327 IAC 15-12.

(10) A new or increased discharge of a non-BCC, if the applicant demonstrates the following:

(A) The new or increased discharge is necessary to accomplish a reduction in the release of one (1) or more air pollutants.

(B) All reasonable and cost-effective methods for minimizing or preventing the new or increased discharge have been taken.

(C) There will be an environmental improvement. An environmental improvement will occur when the applicant demonstrates that the reduction in the discharge of the air pollutant:

(i) is necessary to meet a state or federal air quality standard or emission requirement; or

(ii) will substantially reduce human exposure to hazardous air pollutants or to other air pollutants that are subject to state or federal air quality standards.

(11) New or increased discharges of a non-BCC, where there is a contemporaneous enforceable decrease in the actual loading of the non-BCC from sources contributing to the same body of water such that there is no net increase in the loading of the non-BCC to the same body of water.

(12) A proposed new discharge from a sanitary wastewater treatment plant constructed to alleviate a public health concern, for example, a connection of existing residences currently on septic systems. The applicant shall demonstrate that the proposed treatment plant represents the best technology available as described in subdivision (1).

(13) A new or increased discharge of a non-BCC if the applicant demonstrates the following:

(A) The new or increased discharge is necessary to accomplish a reduction in the discharge of another pollutant or pollutant parameter.

(B) All reasonable and cost-effective methods for minimizing or preventing the new or increased discharge have been taken.

(C) There will be an improvement in water quality in the water body. An improvement in water quality will occur if the new or increased discharge of the non-BCC is:

(i) not more bioaccumulative; and

(ii) either less bioaccumulative or less toxic than the reduced pollutant or pollutant parameter.

In making these determinations regarding bioaccumulation, the bioaccumulation factor methodology under 327 IAC 2-1.5-13 will be used.

(e) As used in subsection (c), the following definitions apply:
(1) "Same body of water" has the meaning set forth in section 327 IAC 5-2-11.5(b)(4)(B)(i).
(2) "Sanitary wastewater" means the liquid and water-carried waste from residences, commercial buildings, industrial plants, institutions, and other places of human occupancy that is transported by sewers and is primarily composed of human and household waste. The term does not include industrial process wastewater.

(Water Pollution Control Board; 327 IAC 2-1.3-6)

327 IAC 2-1.3-7 Antidegradation demonstration and determination
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-4-1; IC 13-18-4-3
Affected: IC 13-18-3; IC 13-18-4

Sec. 7. (a) If the provisions ~~an exemption~~ listed in section 6 of this rule does not apply and the existing or proposed new discharger proposing to cause a significant lowering of water quality in an OSRW does not elect to utilize the provisions in subsection (i), the existing or proposed new discharger must submit an antidegradation demonstration to the commissioner in accordance with this section before applying for a facility construction permit pursuant to 327 IAC 3, if applicable, or for a new, renewed, or modified control document.

(b) All antidegradation demonstrations shall contain the following elements:
(1) An identification of all pollutants for which the antidegradation demonstration is required.
(2) An identification of measures available to the existing or proposed discharger to minimize or prevent the proposed lowering of water quality. A separate analysis shall be performed for each pollutant for which there may be significant lowering of water quality. Each analysis shall include the following:
(A) Any cost-effective pollution prevention alternatives and techniques available to the existing or proposed discharger that would minimize or prevent the proposed significant lowering of water quality, the effluent concentrations attainable by the alternatives and techniques, and their costs relative to the cost of treatment necessary to achieve applicable effluent limitations.
(B) Alternative or enhanced treatment techniques available to the existing or proposed discharger that would minimize or prevent the proposed significant lowering of water quality, the effluent concentrations attainable by the alternatives and enhanced treatment techniques, and their costs relative to the cost of treatment necessary to achieve applicable effluent limitations. This analysis shall include an evaluation of the feasibility and costs of

connecting to an existing publicly or privately owned treatment works.

(3) Documentation showing that the existing or proposed discharger has made a good faith effort to provide notice to all government or privately sponsored conservation projects that have specifically targeted improved water quality or enhanced recreational opportunities on the proposed receiving water body in the area of the new or increased discharge. The notice shall include a list of the parameters for which a significant lowering of water quality is proposed.

(4) An identification of the current concentration and projected concentration, if lowering is allowed, of any bioaccumulative chemicals of concern (BCCs) for which the antidegradation demonstration is being submitted.

(c) For publicly owned treatment works (POTWs), if the proposed significant lowering of water quality is a result of a proposed new or increased discharge from one (1) or more indirect dischargers, the antidegradation demonstration shall also include the following:

(1) The requirements of subsection (b)(2)(A) and (b)(2)(B) shall be completed for the indirect discharger(s) as well as for the POTW. The POTW may require the indirect dischargers to prepare this information.

(2) If one (1) or more of the indirect dischargers proposes or does discharge to a combined sewer (or to a sanitary sewer that is connected to a combined sewer), all combined sewer overflows (CSOs) between the point of discharge to the sewer and the POTW shall be identified.

(d) For dischargers that are not POTWs and for POTWs for which the proposed significant lowering of water quality is a result of a proposed new or increased discharge from one (1) or more indirect dischargers, the antidegradation demonstration shall also contain an evaluation of the positive and negative social or economic development impacts to the area in which the receiving waters are located that will occur if the significant lowering of water quality is allowed. The POTW may require the indirect dischargers to prepare this information. This evaluation shall include the following:

(1) An evaluation of the baseline economic condition, including the following:

(A) The unemployment rate in the area.

(B) The population in the area.

(C) The average household income relative to state and national averages.

(D) The percentage of the population living below the poverty level.

(2) Information on the anticipated net positive impacts attributable to the activity that will result in the new or increased discharge, including the following:

(A) The increase in employment, or avoidance of a reduction in employment at the facility.

(B) The reduction in the local unemployment rate attributable to the facility.

(C) The total annual payroll of nonofficers for the new or increased employment, and the average annual wage for the new, nonofficer employees. In lieu of this information, the applicant may provide other information that quantifies the extent of the economic benefit to be provided

to the area.

(D) The increased tax revenues.

(E) The increase in production level.

(F) The increase in efficiency.

(G) The extent to which an environmental or public health problem is corrected.

(H) Industrial, commercial, or residential growth in the community.

(I) Other social or economic benefits to the community.

(e) In lieu of the information required by subsections (b) through (d), dischargers proposing:

(1) a response action pursuant to CERCLA;

(2) a corrective action pursuant to RCRA; or

(3) an action pursuant to similar federal or state authorities, including:

(A) an underground storage tank (UST) corrective action under IC 13-23-13;

(B) a remediation of petroleum releases under IC 13-24-1;

(C) a voluntary remediation under IC 13-25-5; or

(D) an abatement or correction of any polluted condition under IC 13-18-7;

may submit information to the commissioner demonstrating that the action minimizes the proposed lowering of water quality and will use the most cost effective pollution prevention and treatment techniques available.

(f) Upon receipt of an antidegradation demonstration, the commissioner shall provide notice, request comment, and may, if requested, schedule and hold a public meeting on the application in accordance with section 10 of this rule. The commissioner shall quantify the increased risk to human health due to new or increased discharges of BCCs. This information shall be available for inspection and copying as a public record before the public meeting is held.

(g) Once the commissioner determines that the information provided by the discharger proposing a new or increased discharge is administratively complete, the commissioner shall make an antidegradation determination in accordance with the following:

(1) The commissioner shall deny the request to lower water quality if:

(A) cost-effective measures necessary to prevent the proposed lowering are reasonably available; or

(B) the action that would cause the lowering would not support important social and economic development in the area.

(2) If the legislative body of the unit of government in which the proposed discharge outfall is located determine the action that will cause the lowering will support important social and economic development in the area, in accordance with this section, the commissioner may allow all or part of the proposed lowering.

(3) In no event may the determination allow water quality to be lowered below the minimum level required to fully support existing and designated uses.

(h) When the commissioner proposes an antidegradation determination, it shall be summarized in the public notice form and incorporated into the draft permit and the fact sheet that is made available for public comment under 327 IAC 5-3-9. A final antidegradation decision shall be incorporated into the final NPDES permit and fact sheet.

(i) In lieu of the provisions in subsections (b) through (h), dischargers proposing to cause a significant lowering of water quality in an OSRW can choose to follow the provisions in either subdivision (1) or subdivision (2) for each activity undertaken that will result in a significant lowering of water quality in an OSRW or exceptional use water.

(1) Implementation of a water quality project in the watershed of the outstanding state resource water or the exceptional use water that will result in an overall improvement of the water quality of the outstanding state resource water or the exceptional use water.

(2) Payment of a fee, not to exceed five hundred thousand dollars ($500,000) based on the type and quantity of increased pollutant loadings for deposit in the outstanding state resource water improvement fund established under IC 13-18-3-14.

Existing or proposed new dischargers electing to follow the procedures in either subdivisions (1) or (2) must follow the public notice requirements under section 10.

[criteria for submitting and approval of projects in subdivision 1 & 2]

[use of water quality data that is less than 7 years old and specific to the OSRW]

[Criteria for using the watershed improvement fees to fund projects in the watershed that result in improvement in water quality in the outstanding state resource water or exceptional use water.]

(Water Pollution Control Board; 327 IAC 2-1.3-7)

327 IAC 2-1.3-8 Designation of a water body as an outstanding state resource water or outstanding national resource water

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-4-1; IC 13-18-4-3

Affected: IC 13-14-8-4; IC 13-14-9; IC 13-18-3; IC 13-18-4; IC 14-29-6

Sec. 8. (a) The department shall initiate a rulemaking to designate a water body as an outstanding state resource water (OSRW) if the following are met:

(1) The water body has excellent quality. For an OSRW, the water body has excellent quality if two (2) of the following are met:

(A) The water body has excellent biological quality.

(B) The water body has excellent chemical quality.

(C) The water body has excellent physical quality.

(2) The water body has significant recreation or preservation uses. For an OSRW, the water body has significant recreation or preservation uses if at least three (3) of the following are met:

(A) The water body has excellent aesthetic quality.

(B) The water body is contained in, partially contained in, or borders on a park, forest or natural area, or nature preserve designated for special protection on a federal, state or local level.

(C) Threatened or endangered species are contained within or are dependant on the water body.

(D) The water body is an outstanding recreational fishery or is a first or second order stream in an undeveloped watershed.

~~**(b) The department shall initiate a rulemaking to designate a water body as an outstanding national resource water (ONRW) if the following are met:**~~

~~**(1) The water body has excellent quality. For an ONRW, the water body has excellent quality if all of the following are met:**~~

~~**(A) The water body has excellent biological quality.**~~

~~**(B) The water body has excellent chemical quality.**~~

~~**(C) The water body has excellent physical quality.**~~

~~**(2) The water body has significant recreation or preservation uses. For an ONRW, the water body has significant recreation or preservation uses if at least three (3) of the following are met:**~~

~~**(A) The water body has excellent aesthetic quality.**~~

~~**(B) The water body is contained in, partially contained in, or borders on a park, forest or natural area, or nature preserve designated for special protection on a federal, state or local level.**~~

~~**(C) Threatened or endangered species are contained within or are dependant on the water body.**~~

~~**(D) The water body is an outstanding recreational fishery or is a first or second order stream in an undeveloped watershed.**~~

~~**(3) The water body has national significance of value. A factor that may be considered in determining whether a water body has national significance or value is if it has been recognized as important through official action such as:**~~

~~**(A) federal or state law;**~~

~~**(B) presidential, legislative, or secretarial action;**~~

~~**(C) international treaty; or**~~

~~**(D) interstate compact.**~~

(b) Waters that may be considered for designation as ONRWs include water bodies that are recognized as:

(1) important because of protection through official action, such as:

(A) federal or state law;

(B) presidential or secretarial action;

(C) international treaty; or

(D) interstate compact;

(2) having exceptional recreational significance;

(3) having exceptional ecological significance;

(4) having other special environmental, recreational, or ecological attributes; or

(5) waters with respect to which designation as an ONRW is reasonably necessary for protection of other water bodies designated as ONRWs.

(c)A water body may be designated as an ONRW only by the general assembly after recommendations for designation are made by the board pursuant to section 9 and the environmental quality service council.

(d) The following definitions apply throughout this section:
(1) "Excellent biological quality" means that the fish community scores at least 50 points using a valid Index of Biotic Integrity (IBI) scoring system of Karr et. al. (1986) and as modified for Indiana by Simon (1991, 1992, 1994, 1995, 1998), Simon et. al. (1995), and Barbour et. al. (1997),* or the instream macroinvertebrate community scores within the upper twenty-five percent (25%) of the distribution of Indiana sites sampled using an appropriate and valid invertebrate community index and classification system as presented in Barbour et. al. (1997).
(2) "Excellent chemical quality" means a determination by a comprehensive assessment of the watershed. This assessment shall consider the chemical water quality, using accepted and reliable analysis techniques and methods that characterize the water quality, including suspended inorganic matter, dissolved major ions, dissolved nutrients, suspended and dissolved organic matter, gases and trace metals. Excellent chemical quality shall be determined by comparison to reference conditions that have been determined based upon similar studies that characterize the optimal condition for the region.
(3) "Excellent physical quality" means the water body or segment has exceptional physical characteristics considering geological, morphological, and hydrological factors.
(4) "Excellent aesthetic quality" means a water body that is recommended for designation by the Indiana department of natural resources or is designated by the Indiana natural resources commission as a scenic, or recreational river pursuant to IC 14-29-6, or that achieves a score of thirteen (13) or more when evaluated using the following framework:

(A) Naturalness of bank vegetation:

25% or less disturbed, some light cutting, grazing, or thinning may have occurred as long as the character of the vegetation type remains intact	**3**
25-50% disturbed	**2**
51-75% disturbed, heavy grazing, cutting or clearing	**1**
More than 75% disturbed	**0**

(B) Vegetation depth-length index, two (2) classes of depth used in determining the index:

(i) native vegetation extending back at least one hundred (100) feet is simply measured by the miles of its length along the stream; and

(ii) forest or brush fringes and strips of vegetation less than one hundred 100 feet deep are given one-half (½) the number of miles of their length along the stream.

Index of 75% or more	**3**
Index of 51-74%	**2**
Index of 25-50%	**1**
less than 25%	**0**

(C) Physical modification of the stream or its course:

Not channelized and no dams	**3**
Innundation and/or channelization which creates artificial pools that back up water for 3% or less of the stream length at normal summer levels	**2**
Innundation and/or channelization have a cumulative total of more than 3% but not more than 5%	**1**
Innundation and/or channelization have a cumulative total of more than 5%	**0**

(D) Human development of flood plains, slopes, and visible uplands. The stream (or segment) is to be rated when foliage is full for both:

(i) visible urban impact; and

(ii) additional visible structures.

Visible urban impact

100% nonurban along banks	**1.5**
Up to 5% urban	**1**
Between 5% and 10% urban	**0.5**
More than 10% urban	**0**

Additional visible structures

Up to 0.5 additional visible houses, cabins, industrial buildings, gravel pits, or clusters per mile	**1.5**
Between 0.6 and 1.0 additional visible houses, cabins, industrial buildings, gravel pits, or clusters per mile	**1**
Between 1.1 and 2.0 additional visible houses, cabins, industrial buildings, gravel pits, or clusters per mile	**0.5**
More than 2.0 additional visible houses, cabins, industrial buildings, gravel pits, or clusters per mile	**0**

(E) Special natural features. Views, species of plants, fish and wildlife

habitat, or geological formation, occurring anywhere along the length of the stream (or segment), either singly or in combination that are significant.

National significance	**4**
Statewide significance	**3**
Regional significance	**2**
Local significance	**1**
Not of significance	**0**

(F) Aesthetic quality of water:

No visible pollution, except for highly unusual accidents; turbid only after heavy rain	**3**
Visible pollution, except for muddy water is rare	**2**
Pollution periodically, but infrequently, visible, chronically turbid	**1**
Pollution is chronic and visible, not including muddy surface waters	**0**

(G) Paralleling roads:

Less than 0.08 mile of paralleling county roads within 1,000 feet of the water body per mile. No state, United States, or interstate highways within 1,000 feet of water body	**3**
Between 0.09 and 0.2 mile of paralleling county roads or state highways within 1,000 feet of the water body per mile. No United States, or interstate highways within 1,000 feet of water body	**2**
Between 0.3 and 0.5 miles of paralleling county roads or state or United States highways within 1,000 feet of the water body per mile	**1**
More than 0.5 miles of paralleling roads within 1,000 feet of the water body per mile	**0**

(H) Crossings:

0.3 crossings per mile	**3**
0.4 0.5 crossings per mile	**2**

0.6 1.0 crossings per mile	**1**
More than 1.0 or more crossings per mile	**0**

(5) "Outstanding recreational sport fishery" means a water body characterized as being sustained through natural fish reproduction, and providing a variety of sport fish species including many of the following examples: rock bass, sauger, largemouth bass, smallmouth bass, spotted bass, flathead catfish, channel catfish, and northern pike. These sport fish populations comprise an appropriate portion of the fish community (relative abundance) and have a representative length frequency distribution and age structure, indicative of stable and healthy systems. Such systems also provide higher than average sport fish catch rates including presence of large individual fish.

(6) "Stream order" means a classification of stream size, where the smallest, unbranched tributaries of a drainage basin are designated first order streams in an undeveloped watershed. Where two first order streams join, a second order stream is formed. For the purposes of water quality standards application, stream order is determined from United States Geological Service topographic maps with a scale of 1:24,000.

(7) "Undeveloped watershed" means that the watershed meets all of the following tests:

(A) Less than three percent (3%) of the land in the watershed is employed in urban land uses.

(B) There are no municipalities located in the watershed that have a population greater than five thousand (5,000).

As used in this subdivision, "watershed" means all of the land area that drains to the water body at issue, including the land area that drains to tributaries or upstream segments.

***Index of Biotic Integrity (IBI) scoring system of Karr et. al. (1986) and as modified for Indiana by Simon (1991, 1992, 1994, 1995, 1998), Simon et. al. (1995), and Barbour et. al. (1997), is incorporated by reference and may be obtained from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46206.** *(Water Pollution Control Board; 327 IAC 2-1.3-8)*

327 IAC 2-1.3-9 Procedures to recommend surface waters for designations as outstanding state resource waters and outstanding national resource waters

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-4-1; IC 13-18-4-3

Affected: IC 13-14-8-4; IC 13-14-9; IC 13-18-3; IC 13-18-4

Sec. 9. (a) A water body, or segment thereof, may be considered for designation as an outstanding state resource water (OSRW) or outstanding national resource water

(ONRW) through one (1) of the following procedures:

(1) The board receives a proposal for designation pursuant to IC 13-14-8-5, which must be on an application form consistent with the form described in subsection (b).

(2) The commissioner decides pursuant to section 1 of this rule to commence a rulemaking before the board.

(3) An interested party submits a nomination to the commissioner pursuant to the procedures set forth in subsection (b), and the commissioner determines that the nomination has merit and decides to commence a rulemaking before the board with regard to that nomination.

(b) In September of each year, the commissioner shall publish a notice in the Indiana Register announcing that interested parties may submit nominations for water bodies to be considered for designation as an OSRW or an ONRW. The Indiana Register notice shall contain an application form requesting the submittal of available information that support the designation of the nominated water body, including available information showing that the water body meets the prerequisites for designation specified in section 1 of this rule as applicable. All nominations shall:

(1) be received by the commissioner within sixty (60) days after publication of the notice;

(2) be submitted on the application form published in the Indiana Register.

(c) If the board receives a proposal for designation pursuant to subsection (a)(1), and determines the proposal is not plainly devoid of merit, or if the commissioner decides to commence a rulemaking pursuant to subsection (a)(2) or (a)(3), the commissioner shall do the following:

(1) Prepare a detailed analysis of the possible designation. If the proposed designation meets the requirements of section 1 of this rule, this analysis at a minimum shall include the following information:

(A) A specific delineation of the boundaries of the water body and of the watershed area that would be affected by the applicable implementation procedures;

(B) A detailed discussion of the reason or reasons that the water body is being proposed or considered for special designation.

(C) A detailed description of the procedures to be followed by the commissioner and by the board in considering whether the water body should be designated.

(D) A comparison of the existing antidegradation requirements applicable to the water body to all potential antidegradation requirements applicable to that water body if successfully designated as an OSRW or an ONRW.

(E) Economic impact analyses, presented by any interested party, taking into account future population and economic development growth.

(F) The biological criteria scores for the water body, using factors that consider fish communities, macro invertebrate communities, and chemical quality criteria using representative biological data from the water body

under consideration.

(G) The level of current urban and agricultural development in the watershed.

(H) Whether the designation of the water body as an outstanding state resource water will have a significant adverse effect on future population, development, and economic growth in the watershed, if the water body is in a watershed that has more than three percent (3%) of its land in urban land uses or serves a municipality with a population greater than five thousand (5,000).

(I) Whether the designation of the water body as an outstanding state resource water is necessary to protect the unique or special ecological, recreational, or aesthetic significance of the water body.

(2) The commissioner shall prepare a summary document of the detailed analysis required under subdivision (1) that shall be mailed, using certified mail with return receipt requested, to the following parties within thirty (30) days of completion of the analysis:

(A) All interested parties that have requested notice of proposed designations from the:

Indiana Department of Environmental Management
Office of Water Management, Planning Branch, Rules Section
P.O. Box 6015
Indianapolis, Indiana 46206-6015

(B) All government units affected by the designation and the implementation procedures of the designation. In this notification IDEM will indicate that the legislative body of the governmental units may adopt a resolution for consideration by the department regarding the designation.

(C) All NPDES permit holders affected by the designation and the implementation procedures.

(3) The commissioner shall publish a notice announcing the consideration of the rulemaking in the largest daily circulation newspaper in the county or counties in which the watershed of the water body being considered for designation is located. The notice shall discuss the availability of the detailed analysis required under subdivision (1) and include the summary document required under subdivision (2).

(4) The commissioner shall also publish the summary document required under subdivision (2) in the Indiana Register.

(5) All of the notices required under subdivisions (2) through (4) shall be mailed and published at least thirty (30) days before the public meeting required under subdivision (6).

(6) If the proposed designation meets the requirements of section 1 of this rule the commissioner shall hold a public meeting regarding the proposed designation, at a location in the affected watershed. At the public meeting, the commissioner shall present the information required in subdivision (1).

(7) No sooner than thirty days following the public meeting required in subdivision 6, the commissioner shall hold a public hearing regarding the proposed designation,

at a location in the affected watershed. At the public hearing, any interested party may present oral testimony and written comments. After considering the oral testimony and written comments, the commissioner shall take one (1) of the following actions as applicable:

(A) If proceeding pursuant to subsection (a)(1), submit a recommendation to the board as to whether a rulemaking should be commenced, along with copies of the analysis and summary developed pursuant to subdivisions (1) and (2), any written comments that were submitted to the commissioner, a summary of those comments, and the record of the public hearing. The commissioner's recommendation must be made publicly available at least fifteen (15) days before the board holds a hearing on the proposed designation.

(B) If proceeding pursuant to subsection (a)(2) or (a)(3), and based upon the analysis and summary developed pursuant to subdivisions (1) and (2), any written comments submitted to the commissioner, and the testimony at the public meeting, publish a notice in the Indiana Register pursuant to IC 13-14-9.

(d) In adopting rules to designate a water body as an OSRW or to recommend a water for designation as an ONRW, the board shall take into account the requisite factors in IC 13-18-3-2 and IC 13-14-8-4.

(e) The commissioner shall present a summary of the comments received from the comment period and information that supports the water body designation pursuant to subsection (c)(1) as an OSRW to the environmental quality service council not later than one hundred twenty (120) days after the rule regarding the designation is finally adopted by the board.

(f) The commissioner shall present a summary of the comments and information received during the comment period that supports the water body's designation as an ONRW and the department's recommendation to the environmental quality service council not later than ninety (90) days after the end of the comment period. The council shall consider the comments, information, and recommendation received from the department, and shall convey its recommendation concerning designation to the general assembly within six (6) months after receipt.*(Water Pollution Control Board; 327 IAC 2-1.3-9)*

327 IAC 2-1.3-10 Public participation in certain water quality decisions

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-2; IC 13-18-3-3; IC 13-18-4-1; IC 13-18-4-3

Affected: IC 13-15-4-1; IC 13-15-4-3; IC 13-18-3; IC 13-18-4

Sec. 10. (a) This section is applicable to the following:

(1) An application for site-specific modification of Tier I water quality criteria or Tier II values under 327 IAC 2-1-8.2 through 327 IAC 2-1-8.7 or 327 IAC 2-1.5-16.

(2) An application for an antidegradation demonstration under section 7 of this rule.
(3) An application for certain ~~antidegradation exemptions~~ provisions under section 6 of this rule.
(4) An application for an alternate mixing zone under 327 IAC 5-2.2-2.
(5) An application for a variance under 327 IAC 2-1-8.8 or 327 IAC 2-1.5-17.
~~(6) An application for the removal of a designated use under 327 IAC 2-1-3.1.~~
(6) An application for a water quality improvement project or fee payment under section 7(i) of this rule

(b) Upon receipt of an application listed in subsection (a), the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with the following conditions:
(1) The commissioner shall provide notice of receipt of an application in the following manner:
(A) Publish a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge for which the application was submitted.
(B) Send the notice to interested persons on either of the following mailing lists:
(i) The mailing list identified under 327 IAC 5-3-8(a).
(ii) The mailing list identified under 327 IAC 5-3-12(b)(1).
(C) Send the notice to the applicant.
(2) The notice under subdivision (1) shall contain the following:
(A) Name and address of the department.
(B) Name and address of the applicant.
(C) An identification of the type of application submitted, as listed in subsection (a).
(D) A brief description of the location of any existing or proposed discharge point subject to the application, including an identification of the receiving water.
(E) A brief description of the applicant's activities or operations that result in the discharge identified in the application.
(F) An identification of the substance or substances for which the application was submitted.
(G) Name of an agency contact person, and an address and telephone number where interested persons may obtain further information, including a copy of the application.
(H) A brief description of the comment procedures and the procedures to request a public meeting.
(3) A comment period of at least thirty (30) days following the date of public notice shall be provided.
(4) If any person requests a public meeting, the commissioner shall hold a public meeting on the application in accordance with the following provisions:
(A) The commissioner shall provide notice of the public meeting as follows:

(i) Publish a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge for which the application was submitted.

(ii) Send the notice to the following interested persons:

(AA) Persons on the mailing list identified under 327 IAC 5-3-8(a).

(BB) Persons on the mailing list identified under 327 IAC 5-3-12(b)(1).

(CC) Those persons who commented on the notice of receipt of the application.

(iii) Send the notice to the applicant.

(B) The notice required by clause (A) shall contain the date, time, and place of the public meeting, and the information required under subdivision (2).

(C) This meeting shall be held at least ten (10) days after the later of the following:

(i) The notice, in accordance with clause (A)(i) appears in the newspaper.

(ii) The postmark date of the written notice sent to interested parties and to the applicant in accordance with clause (A)(ii) and (A)(iii).

(D) The meeting shall be recorded by any of the following:

(i) Audio tape.

(ii) Video tape.

(iii) Any other method of accurately and completely recording the details of the meeting.

(E) The commissioner shall request the applicant to provide a summary and rationale for the application at the meeting.

(F) At the commissioner's discretion, a public meeting may be noticed and held without having first received a request for a public meeting. In these instances, the notice for the public meeting may be contained in the notice of receipt of the application.

(5) Pursuant to IC 13-15-4-3, the time period under IC 13-15-4-1 is hereby changed to increase the period by thirty (30) days for any permit application subject to the time period that is affected by the submittal of an application listed in subsection (a). If a public meeting is requested, the time period under IC 13-15-4-1 is hereby changed pursuant to IC 13-15-4-2 to increase the period by an additional thirty (30) days.

(Water Pollution Control Board; 327 IAC 2-1.3-10)